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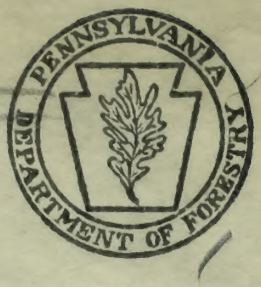

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FACTS AND FIGURES

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Leaflets 1 - 18

GIFFORD PINCHOT, COMMISSIONER

November 1921.

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Leaflet No. 1
October 20, 1921.

The following statement of forest conditions in Pennsylvania was made to Governor Sproul, April 6, 1920, by the Commissioner of Forestry:

My dear Governor:

The harm forest fires do is not measured by the few trees they are still able to find and destroy on our devastated hill sides, but by the enormous production of lumber and wood which they prevent. The vast wealth that our forest lands would be producing every year, if protected, is what the fires really cost us.

Forest fires have made a desert in Pennsylvania larger than the whole state of New Jersey. One-sixth of the area of our state is a waste, of practically no benefit to the people of Pennsylvania, and getting worse instead of better.

Six million acres in our State are too rough and rocky for the plough. They must either grow trees or produce nothing. They are in fact producing practically nothing, for the fires kill each new growth of little trees before they can reach merchantable size. One million acres of this rough land is owned by the State, and is partially protected. Five million acres are privately owned, and the fires are ruining even what trifling value it still has left.

This is the Pennsylvania Desert. It covers one-sixth part of our State. It is producing little or nothing, whereas it might, if the fires had been kept out, be producing in taxes without hardship to the owners almost as many dollars as it now produces cents, and in addition vast stores of lumber and wood for the use of our people.

The million acres of State Forests we have now cost us about $2.28 per acre. The State Forests are worth to-day in cash at least $2,500,000 more than they have cost us. Pennsylvania's Desert ought to be bought as an investment by the State, for that is the only sure way to make it productive.

To offset the Pennsylvania Desert, the State has appropriated for forest fire protection, during the last six years, less than $30,000 per year, or not a quarter of a cent per acre, in an effective effort to stop this gigantic loss. It has been like trying to put out a burning building with water in a spoon.

Eleven years ago Pennsylvania was cutting as much wood and lumber as our people consumed. Today we are cutting less than one-third, and we consume ten times as much as we grow. Until we permit our mountains to reforest themselves by stopping the fires, we must import two-thirds now (and far more later) of all we use, and get it from steadily increasing distances at steadily increasing expense.

Leaflet No. 1
October 20, 1951

Sincerely yours,

Beaverton Conservation Committee

The following statement of forest conditions in Beaverton was made to Governor Sprout, April 6, 1950, by the committee:

"We, your Conservation Committee, urge you to take immediate steps to prevent the destruction of our forests by fire and to see that the cut timber is used to the best advantage. Our forests are still able to furnish enough timber to supply our present needs, but at the present rate of cutting and waste, they will be gone in a few years. Unless we do something to protect our forests, in a very few years we will have to import lumber from other states to supply our needs."

Forest Facts

Every year fire destroys enough timber to build a six-room house for every family in Beaverton. Enough timber is left standing to build only one house.

Every year enough timber is cut to build 100 houses, but enough is destroyed by fire and waste to build 1,000 houses.

Every year enough timber is destroyed by fire to build a city the size of Portland.

Every year enough timber is destroyed by fire to build a city the size of Beaverton.

Every year enough timber is destroyed by fire to build a city the size of Hillsboro.

Every year enough timber is destroyed by fire to build a city the size of Forest Grove.

Every year enough timber is destroyed by fire to build a city the size of Cornelius.

Every year enough timber is destroyed by fire to build a city the size of Gaston.

Every year enough timber is destroyed by fire to build a city the size of Banks.

Every year enough timber is destroyed by fire to build a city the size of North Plains.

Every year enough timber is destroyed by fire to build a city the size of Scappoose.

Every year enough timber is destroyed by fire to build a city the size of Vernonia.

Every year enough timber is destroyed by fire to build a city the size of Clatskanie.

Every year enough timber is destroyed by fire to build a city the size of Rainier.

Every year enough timber is destroyed by fire to build a city the size of St. Helens.

Every year enough timber is destroyed by fire to build a city the size of Columbia City

If our forest lands had been wisely handled, they would be growing, each year, as much timber as they produced in the year of their greatest yield, and that timber would be available at half the present prices. And the difference is only part of what we pay for forest devastation. We pay at least $25,000,000 a year for freight on lumber brought into the State, which might have been grown at home. We pay at least $50,000,000 more for the lumber itself. Then there is the loss from the closing or removal of wood-working industries, the loss from floods, the loss to farmers and business men, the loss of fish and game, and many other losses.

There is small comfort for us beyond our own boundaries. As a Nation, we cut two and one half times as much as we grow. Our needs are increasing. Our domestic supplies are dwindling, and there are no forests in the world from which we can import lumber enough of suitable kinds at suitable prices to meet our needs. Under these conditions a national timber shortage was inevitable. As the prices of paper and lumber show, it is already here, and is growing steadily worse.

For all these reasons it would be sound business and wise foresight for us to protect from fire, restore to production, and as it were annex once more to the State, the wasted forest lands of our Commonwealth. These lands might be and should be pouring out a flood of valuable products, saving us from a vast and needless expense, and securing us against the certainty of suffering from the national timber famine which is now clearly in sight. Fire stands in the way.

Very sincerely yours,

(Signed) GIFFORD PINCHOT.

Hon. Wm. C. Sproul,
Governor of Pennsylvania.

(Cont.) Treasury Bldg.

October 20, 1937

If only forest land had been wisely handled, they would be growing, each year, as much timber as they produced in the West at present. And the difference is only part of what we pay for forest devastation. We pay at least $25,000,000 a year for timber on lumber brought into Chicago, which might have been grown at home. We pay at least $50,000,000 more for lumber to work into furniture and pattern and the loss from floods, the loss from erosion of farmers and the loss of tax and game, and many other losses.

There is small comfort for us beyond our own boundaries. As a matter of conservation, our one hope is to grow as much timber as we can, and there are no forests in the world which we can import, enough to meet our needs. Under existing kinds as sustained timber shortage. As the pictures of lumber and furniture show, it is already very.

Not all these reasons it would be sound business and wise forestry for us to protect from fire, restore to production, and as it were since once to the state, the largest land of our Commonwealth. These lands might be used as a good source of welfare profits, assuring steady employment and payrolls as well as the direct benefits of a timber famine. Fire already in the form of

Very sincerely yours,

(signed) GIFFORD PINCHOT

Hon. Chas. F. Sproul,
Superintendent of Forestry,

Leaflet No: 2
October 20, 1921.

A report on the forest fire season in Pennsylvania during the spring of 1921 was made to Governor Sproul by Commissioner Pinchot, as follows:

June 15, 1921.

Hon. Wm. C. Sproul,
Governor,
Harrisburg, Pa.

My dear Governor:

Within the last year the Department of Forestry has been reorganized throughout. The spring fire season of 1921, which is just closing, supplies the first important test of its efficiency under the new organization.

During the past spring, 1770 fires were reported, or more than in any other corresponding season in the history of the Department. Moreover, this was much the longest fire season recorded, lasting as it did from early in January until the middle of June, or five months and a half. The average spring fire season lasts but three.

In spite of a season of nearly double the average length and the largest number of fires ever reported, the total area burned over was reduced from 240,000 acres in the spring of 1920 to 150,000 in 1921.

The area of State Forest land burned over in the spring of 1921 was 2071 acres, while the next lowest area burned was 3864 acres in 1914. In every other spring season of record, the burning of State Forest lands was over 10,000 acres.

The best test of effectiveness in controlling forest fires is the average size of the fires, because it shows how promptly and vigorously the fires are discovered, fought, and put out. In 1920, the average spring fire covered 187 acres; in 1921 it covered 86 acres, or less than half. The lowest previous record for any spring fire season was 137.

About half of the damage done by forest fires in Pennsylvania is caused by the large fires which burn more than one thousand acres each. In the spring of 1920 these numbered 46. This spring they were reduced to 15, or less than one-third.

The standard of the Department's work this spring compared with the average of the 8 years during which fire records have been kept is equally satisfactory. The total area of 150,000 acres burned over this spring compares with an eight year average of 208,522 acres, and this in spite of the fact that the fires reported this spring were nearly twice as many as the average. The average of 86 acres per fire this spring compares with an eight year average of 218 acres.

While much remains to be accomplished, it is no more than fair to the foresters, the rangers, and fire wardens in the field, and to the directing officers at Harrisburg, to say that their fire record for the spring season of 1921 represents, as measured by actual results, a degree of efficiency at least double that of any previous year.

I desire gratefully to acknowledge the assistance of thousands of Boy Scouts, hunters and fishermen, railroad men, and others, and of the press, the pulpit, and the business and other interests of the State, who have co-operated with the Department as never before. Without their help the results achieved would have been impossible. The whole situation promises well for what can be done with the million dollar appropriation for fire prevention made by the last Legislature, and now available.

Very respectfully,

(Signed) GIFFORD PINCHOT,

Commissioner of Forestry.

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Leaflet No. 3.
October 20, 1921.

FOREST PROTECTION WEEK was observed in Pennsylvania in April, 1921. Gifford Pinchot, Commissioner of Forestry, issued the following statement calling the attention of the citizens of Pennsylvania to the need of keeping fire out of the woods:

"Out of the forest heritage originally given to Pennsylvania, our forefathers hewed the marvelous agricultural and industrial development of the Keystone State. For generations our great forests were able to supply our own needs for wood, and to contribute generously to the needs of neighboring States. That time is past. Because our people were unmindful of the forests, their glory and richness have departed. The blighting curse of fire, fostered by neglect, has swept over our timberlands until over 5,000,000 acres of forest soil lies barren and idle in Pennsylvania.

"Without wood nothing can be manufactured, nothing grown. Without wood human welfare has never existed and never can exist. To protect our prosperity we must restore our forests. Every acre that will grow timber and that is not needed for even more essential purposes must be made to grow trees. And every acre of growing trees must be made safe against destruction by fire.

"The recurring Spring forest fire season, far more dangerous than the fall, is upon us. Carelessness with fire in the woods at this time may cause irreparable loss. The forest fire question is too serious to be set lightly aside.

"Therefore, by authority of William C. Sproul, Governor of the Commonwealth of Pennsylvania, I ask that the week beginning April 17th, next, be observed as FOREST PROTECTION WEEK.

"During that week I earnestly hope that every citizen of the Commonwealth will consider the forests, the benefits, not to be secured from any other source, which they confer, the reasons why they should be protected and perpetuated, and especially how forest fires may be prevented and timber production in Pennsylvania may be restored. Let those who own and those who frequent the forests use patriotic care to eliminate the scourge of forest fire."

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Leaflet No. 4.
October 20, 1921.

THE DEPARTMENT OF FORESTRY'S JOB.

The Pennsylvania Department of Forestry not only has charge of the 1,100,000 acres of State Forests, but is also responsible for preventing and putting out forest fires on the rest of the 12,000,000 acres of woodland in the State. It protects, develops, and utilizes the State Forests with the purpose of making them, first, yield ultimately the largest possible amount of timber for the use of the citizens of Pennsylvania; secondly, of developing and utilizing to the utmost their possibilities as recreation grounds, protectors of the water supply, and factors in promoting the health and livableness of Pennsylvania.

The Department co-operates with the owners of private timber lands both to handle their forests wisely and to extend them by planting. For the latter purpose it gives away two or three million forest tree seedlings every year, and hopes to increase this number largely in the future.

Since the Pennsylvania State Forests contain comparatively little mature timber, the principal task of the Department at present is the care and development of these areas. Later on they will make very large returns in money to the State.

Because the chestnut is dying throughout the State Forests it has become necessary to utilize it rather than to allow it to die and fall down, thus not only wasting the timber but creating a serious fire hazard.

Fire protection is the Department's first task. It co-operates for the purpose with railroads, private owners of timberland, and others. Its second task is to restore the forest lands in Pennsylvania to productiveness. At present the loss of production due to forest fire reaches an annual value of approximately $100,000,000. although the actual destruction of what fires have left is naturally much less.

The objects of the Department are: First, to check forest fires; second, to restore to productiveness the forests of Pennsylvania: and thus, to make Pennsylvania self supporting as a wood producing State.

The Department's field force consists of 53 Foresters, about 100 Rangers, and in the neighborhood of 150 other employes, making about 300 in all. It directs the work also of some 2,000 forest fire wardens in all parts of the State.

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Leaflet No. 5
October 20, 1921.

In his message to a joint session of the Senate and House of Pennsylvania, in January, 1921, Governor William C. Sproul said:

"The State should acquire, as opportunity may offer, the five million barren acres which might properly be called the Pennsylvania Desert. This vast area can contribute immensely to the wealth and prosperity of our State by raising trees. For that purpose it should be in the hands of the State. The results of a far more careful and accurate investigation of the land necessary for this purpose than has ever been made before will soon be laid before you.

"Within the past year the Department of Forestry has been reorganized throughout. With the assistance and approval of the Forest Commission, all of its methods and policies have been subject to a thorough-going reconstruction. A new system of accounts and disbursements on a budget basis has been prepared and applied. A well-organized plan of inspection has been devised and started. The area of forest land in charge of each Forester has been greatly increased, and there is certainly a new spirit in the field force. A system of co-operation, not only with the other Departments, but with civic organizations throughout the State, is now in effect, and a large volume of information concerning the forests of Pennsylvania has been laid before the citizens. The people have been invited to use the State forests for recreation and enjoyment and have responded by thousands. The attitude of the whole State toward the question of Forestry and forest fires has radically changed, and is now far better than at any previous time in its history.

"A new policy in tree planting has been adopted, including provision for the raising and distribution annually of at least 20,000,000 seedlings by the charitable and correctional institutions of the State, whose co-operation is most valuable. A new plan of practical assistance to owners of timberlands for the introduction of conservative methods of forestry, has met with notable response and is in successful operation.

"Since the forests of Pennsylvania can now supply but one-fifth of the lumber indispensably necessary in agriculture and industry within the State, and since that small fraction will still further diminish in the near future, it is of the utmost importance to restore to forest production that part of the State which is valuable for no no other purpose. One-sixth of Pennsylvania, which can grow trees but nothing else, is now barren and unproductive. Our first task in forestry is to restore it to production. For that purpose nothing is so important as the control and prevention of forest fires."

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Leaflet No. 6.
October 20, 1921.

AMOUNT AND VALUE OF STANDING TIMBER IN PENNSYLVANIA.

(Amount based upon U. S. Forest Service Report of June 1, 1920, on Senate Resolution 311)

Amount

Saw Timber	11,000,000 M. bd.ft.	=	2,400,000,000 cu.ft.
Ties & Props	1,732,800 M. "	=	380,000,000 "
Fuel Wood	4,840,000 M. "	=	2,420,000,000 "
	17,572,800 M. "		5,200,000,000 "

Converting figures:- 1,000 bd.ft. = 219 cu.ft. for saw timber, ties and props.
1,000 bd.ft. = 500 cu.ft. for fuel wood
1,000 bd.ft. = 3 cords.

Value

Saw Timber	11,000,000 M. bd.ft	@ $5. -	$55,000,000
Ties & Props	1,732,800 M "	@ $4. -	6,931,200
Fuel Wood	14,520,000 cords	@ 25¢-	3,630,000
			$65,561.200

Leaflet No. 7
October 20, 1921.

FACTS AND FIGURES ON THE TIMBER SITUATION IN PENNSYLVANIA.

Pennsylvania uses annually approximately two and one-half billion board feet of lumber.

Of this amount the State is producing about one-fifth, and growing only one-third of that.

Pennsylvania consumers must pay in freight alone for lumber used each year more than $25,000,000.

Until 1908 Pennsylvania was a lumber exporting State. Since then we have been importing more and more until in 1920 we imported about five times the amount we produced.

From 2,300,000,000 board feet produced in Pennsylvania in 1899 there was a drop to 500,000,000 board feet in 1918.

Pennsylvania's annual loss due to the falling off in timber production amounts to more than $100,000,000 a year - twice as much as it costs to run the State Government for a like period.

We pay at least $50,000,000 a year for lumber we import which we should produce at home; we pay $25,000,000 a year in freight on this lumber, which we should save; we lose $25,000,000 a year through the closing of industries from floods which could be prevented; through the increased cost of wood pulp to the newspapers; through the increased cost of newspapers to advertisers; through the loss in population driven to other States, and the loss in fish, game, resort business, etc.

The State is losing in wages alone at least $5,000,000 a year. The drop in wages paid in lumber industries in the State from 1899 to 1914 amounted to four million dollars a year. The decrease in the past six years makes $5,000,000 annual loss conservative.

Lumber that could be purchased in 1885 at a Pennsylvania mill for $7.50 a thousand feet now costs $53.00 a thousand feet at an Oregon mill, and must be brought from Oregon or some equally distant point.

Pennsylvania is compelled to import seventy per cent of her wood pulp. This makes newspaper costs great.

Ten cents worth of timber is needed for every ton of coal mined in the State. The annual timber consumption for the anthracite region involves the cutting of approximately 150,000 acres of forests.

Lumber and its re-manufacture leads all the other manufacturing industries of America, exceeding, in capital investment, its nearest rival, which is steel, including rolling mills, by $170,000,000.

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Leaflet No. 8
October 20,1921.

WHAT PENN'S WOODS WILL PRODUCE.

Under proper protection and treatment the forest lands of Pennsylvania will produce at least 90 cu. ft. or 1 cord per acre per annum. This yield was secured on second cutting from hardwood tracts at Pine Grove and Mont Alto when the charcoal furnaces were in operation there, and it is fully supported by numerous measurements of timber growth in Pennsylvania and within similar forest types in New England. Compared with the yield obtained abroad on well managed forest land upon which conditions for growth are no more favorable, it is conservative, For example:

> The communal forest of Boveresse, Switzerland, produced 138 cu. ft. per acre in 1892 and 146 cu. ft. per acre in 1916,
> The annual timber growth in the Sihlwald (Switzerland) is 124.6 cu. ft. per acre.
> The average annual timber growth in Saxony is 93 cu. ft. per acre per annum.

The financial return secured from timber varies, of course, with the stumpage price obtained, based upon the quality of the product. Small trees can be used only for material of small dimension which, as a rule, commands a lower price than the product of larger trees. In Pennsylvania commercial trees are of salable size at 50 years, such trees consist of approximately 50 per cent. Saw timber and 50 per cent. fuel wood; at the end of 75 years the proportion is 65 per cent. and 35 per cent. respectively; at the end of 100 years, 75 per cent. and 25 per cent. respectively. With a yield of 90 cu. ft. per acre per annum, the production in board feet and cords per acre within these periods, is:

50 years - 270 board feet and 1/2 cord.
75 years - 351 board feet and 35/100 cords.
100 years - 405 board feet and 25/100 cords.

Stumpage values have increased remarkably during the past 30 years, particularly during the past 15 years. In Pennsylvania the minimum and maximum stumpage values per M. ft. B. M. received for timber of the more important commercial species for the decades 1890, 1900, and 1919 are as follows:

	Minimum	Maximum
1890	.50	$10.00
1900	1.00	20.00
1910	3.00	30.00
1919	10.00	75.00

From 1900 to 1915 the stumpage price of Douglas fir in the Pacific Northwest increased 500%, the price of Southern yellow pine increased 400%, of California pine 166%, and of the species in the

Inland Empire 500%. Such pronounced increases within short periods can hardly be expected in the future, but it is absolutely safe to assume from the experience of foreign countries that stumpage values will more than double within the next 50 years. The forests of Saxony, for example, increased in value 2 per cent. per annum as shown by records extending over 100 years. There is no hesitance, therefore in estimating the value of timber in Pennsylvania to be cut 50, 75, and 100 years hence at $20.00 per M. board feet, and at $1.50 per cord, which will bring from Penn's Woods an annual return.

For timber cut in 50 years, of $6.15 per acre,
of $36,900,000 on 6,000,000 acres.

For timber cut in 100 years, of $8.47 per acre,
of $50,820,000 on 6,000,000 acres.

For timber cut in 75 years, of $7.54 per acre,
of $45,240,000 on 6,000,000 acres.

Leaflet No. 9
October 20, 1921.

SCOPE AND PURPOSE OF FOREST LEGISLATION ENACTED AT SESSION OF 1921.

These bills taken together were intended merely to place legislative approval upon an organization of the Department of Forestry which is already in force.

No. 270 amends and supplements Section 1 of the act of February 25, 1901, which created the Department of Forestry, and provided for the State Forest Commission and the Commissioner of Forestry.

It makes as few changes as possible in the act of 1901, but does make sure that the State Forest Commission shall have the following powers:

(1) To purchase land to the extent of any appropriation made for that purpose and no more; thus doing away with the act of April 15, 1903, which, by its words, allows the Commission to buy land to the amount of $200,000 per year even if there were not sufficient appropriation, and might prevent buying beyond that amount per year even if there were a larger appropriation. (See end of Sec. 1-b)

(2) It authorized the establishment of certain Bureaus and Offices in the Department (See Sec. 1-c), and the appointment of officers to administer them, so that the work of the Department may be carried on effectively and with facility. (See Sec. 1-e)

(3) It does away with the bad feature of the Forest District Law of July 21, 1913, which confined districts to County boundaries, whereas the Districts should be bounded by natural features, such as mountains, streams, etc., and at the same time preserves all the other good features of said act of July 21, 1913. (See Sec. 1-d)

(4) It provides that the State Forest Officers who from the necessity of their positions must manage, develop and utilize the State Forests, shall be persons "trained in forestry", but leaves the positions like Chiefs of the Office having charge of accounts, clerical affairs, purchase, etc., so that they may be filled according to the qualifications for work of that kind. (See Sec. 1-f)

(5) It authorizes the State Forest Commission to set aside "unusual or historical groves of trees or natural features, especially worthyof permanent preservation" which may be within the State Forests in order that they may be kept for the enjoyment of the people of the State. (See Sec. 1-g, lines 8 to 14 thereof)

(6) It permits the granting of the right to take small quantities of mineral (not exceeding $300.00 in value) at reasonable prices without being obliged to advertise, but preserves the feature of advertisement when the value exceeds $300.00. (See Sec. 1-g, line 22 thereof)

(7) It makes sure that all proper utilization of the land or resources of the State Forests may be realized under rules of the Department of Forestry. (See Sec. 1-g, end thereof)

(8) It provides that the Commission may determine reasonable compensation for the State Forest Officers, but that none of them, except the Commissioner and Deputy Commissioner, may receive more than $5,000.00. (See Sec. 1-c end thereof)

(9) It provides that the Commissioner of Forestry may receive $8,000.00 per year and the Deputy Commissioner $6,000.00 per year, thus bringing them more in line with the other active departments of similar magnitude. (See Sec. 2 of House Bill 270, Page 10, of white print of Feb. 15)

No. 271 would have been made a part of No. 270, except that, because it amends an entirely different act, it must in legislative practice be handled separately.

However, No. 270 and No. 271 constitute one piece of legislation, and should be passed together or much of their benefit will be lost. No. 271 amends the Forest Protection Act of June 3, 1915, as follows:

(1) It supplies a defect in that act by providing that the Chief of the Bureau of Forest Protection shall be Chief Forest Fire Warden. (Sec. 101)

(2) It also provides that the salary of the Chief of the Bureau shall constitute the entire salary or compensation of the Chief Forest Fire Warden; (Sec. 103, page 3), Also that District Foresters shall, by virtue of their appointment, be the District Fire Wardens (Sec. 301) and that their salaries as District Foresters shall be their compensation as District Fire Wardens. (Sec. 303)

(3) Also, that the State Forest Commission may proportion the salaries and expenses of each district between the appropriation for forest protection and the other items of appropriation, according to the division of the duties and expenses of the districts between forest protection and other administrative work. (Sec. 303, end thereof)

(4) It also increases the maximum per hour which may be paid to Forest Fire Wardens from 30 cents to 50 cents, thereby making it more possible to obtain the services of competent men; and increases the maximum per month for Forest Fire Wardens from $50.00 to $75.00 in proportion to the increase of the maximum per hour. (Sec. 405)

(5) Similarly for the persons who voluntarily or under compulsion help fight forest fires, the maximum per hour which they may receive is increased from 25 cents per hour to 40 cents per hour. This is found necessary because of the great advance in cost of labor. (Sec. 701)

Leaflet No. 10.
October 20, 1921.

STATISTICAL FACTS ABOUT PENNSYLVANIA FOREST, LUMBER, AND WOOD INTERESTS.

Consumption of Lumber and Wood based on 1917.....	1,105,000,000	cu.ft.
Produced Lumber and Wood all kinds based on 1917....	396,000,000	"
Actually Cut Saw Timber.....	180,000,000	"
" " Other Timber and Wood.....	Not Known	
Average Cut of Sawed Lumber 1908-1912.....	293,000,000	"
" " " " 1913-1917.....	180,000,000	"
Decreased Cut of Sawed Lumber, 5 yrs. (39%).....	113,000,000	"
Cut of Sawed Lumber in Penna. in 1917, (600,000,000 board feet).....	133,000,000	"
State must import annually Sawed Lumber (est.).....	1,700,000,000	bd.ft.
Highest Cut of Sawed Lumber, 1899.....	2,300,000,000	"
Last year an exporting State (1908) sawed Lumber, etc.....	2,000,000,000	"
Cut of Sawed Lumber 1909.....	1,500,000,000	"
" " " " 1917.....Less than....	600,000,000	"
Capital invested (1914) in logging and other direct Forest Industries.....	$25,000,000.	
Gross return (1914) from logging and other direct Forest Industries.....	$20,000,000.	
Gross return (1899) from logging and other direct Forest Industries.....	$36,000,000.	
Capital invested (1914)in Wood-using plants.....	$118,000,000.	
Less men employed 1914, as compared with 1899, in direct Forest Industries.....	12,000	men
Wages paid 1899 in direct Forest Industries.....	$9,000,000.	
" " 1914 " " "	$5,000,000.	
Decrease of Sawed Lumber cut 1917 compared 1914.....	39%	
Total Forest Area of Pennsylvania more than twice as large as New Jersey.....	12,500,000	acres
Forest Area of Pennsylvania producing timber.....	12,000,000	"
Cubic feet now produced per acre per year (est.)....	30	cu.ft.
Total production of Timber and Wood(per year).....	350,000,000	"
" " Sawed Timber per year - less than	133,000,000	"
" " Timber and Wood per year if fully stocked and protected.....	1,000,000,000	"
Total required - present experience.....	1,105,000,000	"

Note: Thus we see that by bringing the wooded area of the State up to its full timber producing value we could very nearly, or quite, fill the Lumber and Wood requirements of the State especially considering the substitute material coming into increasing use.

RECORD OF DEPARTMENT FOR 1920

PROTECTION

880 new Wardens appointed; total, Jan. 1, 1921, 2,138 wardens; 232 railroad section foremen appointed Special Fire Wardens.

Lists of wardens printed in 14 Bell Telephone spring directories, reaching approximately 250,000 subscribers.

Forest Fire Warden Manual prepared and issued.

137 patrolmen employed during spring fire season to protect 2½ million acres of forest land.

1286 spring fires; average acreage 187.

290 fall fires; average acreage 54.

Summary for 1920:

Area burned	256,413 acres
Damage	$1,007,573
Cost of Extinction	$43,072.53

389 claims for cost of fire extinction presented; 137 claims settled; $2,553.52 collected.

Every fire burning over 250 acres investigated by Foresters; 29 prosecutions for violations of forest fire laws; 23 special investigations by State Police into origin of fires.

Reward of $250 offered for conviction of parties starting forest fires.

$7,500 allotted by Federal Service for fire patrol in State.

Co-operation in effect with 5 protective associations; Highway Dept.; Game Commission; rural mail carriers; U. S. Weather Bureau.

7111 Boy Scouts enrolled as Forest Guides.

7 - 60-ft. Steel towers erected; 3 wooden towers erected.

Each District Forester given supply of fire tools.

Meetings of timberland owners and railroad representatives in which plans for fire co-operation were perfected.

Forest Fire Proclamation by Governor April 1.

Fire Protection Week Proclamation by Governor Sept. 7.

600,000 forest fire posters and 300,000 dodgers distributed.

7 county maps showing locations of forest fire wardens distributed.

Leaflet No. 12.
October 20, 1921.

OFFICE OF INFORMATION

Weekly News Letters received from each Forester, edited, and submitted to local papers throughout the State.

763 news items issued from March 13, 1920, to January 1, 1921.

21 addresses given by Department representatives since October 15, when "Information" began arranging dates.

Leaflet No. 13,
October 20, 1921.

BUREAU OF LANDS.

1,108,475 acres, 156.82 perches of land owned by State January 1, 1921.

315,000 acres of land offered and data secured indicates 300,000 acres additional may be bought if funds are available; lands offered at average price of about $3.50.

Leases in effect:

645 permanent camp sites
1 coal
3 clay, sand, and gravel
10 stone, and rock
71 building
2 agricultural
10 water
62 telephone and telegraph rights of way
8 railroad rights of way
10 wagon rights of way
5 rights of way for pipe lines
12 miscellaneous.

70 miles State Forest boundaries surveyed.
3 condemnation proceedings pending; 1 settled.
39 cases pending to determine ownership of disputed land.
8 maps of State made showing State Forests and game sanctuaries in relation to public highways.
8 Public Use maps started; 4 completed.
Map of State Forests made for Smull's Handbook.

Summary 1920.

Leaflet No. 14
October 20, 1921.

OPERATION

26 Districts established with Forester in charge of each; each District contains from 138,000 to 3,218,000 acres; 23 Districts contain State Forest land of from 1,100 to 93,000 acres, and 3 Districts private land only.

Of 35 Foresters on rolls, 21% dropped for lack of funds August 1st; 2 later restored.

12 new Foresters' headquarters established and 22 discontinued.

1 Ranger station built and repairs made to 16 stations.

94 miles telephone line erected and 14 telephones installed; 350 miles telephone line owned by Department; (3/4 metallic circuit, 1/4 ground circuit).

944 miles old roads brushed and repaired.

547 miles trails brushed.

642 miles fire lines brushed.

31 miles bare soil strips developed.
23 Ford runabouts and 7 International trucks furnished to Foresters.

18 horses secured without cost from State Bolice Department.

21 projects declared "operations" and now in force; $32,225.37 received from sale of products and deposited in State School Fund;
$19,708.56 credited to Commissioner's "Operation" Fund.
$12,002.15 paid from " " "
$ 7,706.41 balance in " " "

Accounting and Filing Systems revised.

Department and Forest budgets put into effect June 1st.

Meeting of State Foresters at Mont Alto, July 23, - August 6.

Each Forest inspected twice during the year and a number of forests inspected three times.

Building and agricultural land census taken and card indexed.

3 Commissioner Timber Sale contracts active.

3 " " " " pending

6 Forester " " " active.

Many Forester and Ranger dead wood sales active.

Leaflet No. 15,
October 20, 1921.

Summary 1920

OFFICE OF RESEARCH

16 articles prepared for general periodicals and 5 for forestry periodicals.

Boy Scouts First Book of Forestry prepared and 2 editions (25,000 copies in all) issued.

Circular "Making Idle Land Pay" revised and issued.

Report by Forest Research Committee.

Report on Forest Types of Pennsylvania.

8 special reports on forest conditions, historic trees, etc.

Data being collected for preliminary report on State Forests.

900 lantern slides classified and catalogued.

100 photographic negatives added to Department collection; total collection 2,100.

Summary - 1920

Leaflet No. 16.
October 20, 1921

SILVICULTURE

409 pounds of tree seed purchased and distributed to the following nurseries:

Mont Alto	240 pounds	$ 856.87
Clearfield	100 "	360.67
Greenwood	60 "	182.27
Caledonia	9 "	19.38
	409 pounds	$1,419.19

The species were:

25% white pine
31% Norway spruce
31% Scotch pine
6% Japanese larch
7% Miscellaneous.

500 pounds additional ordered for spring sowing, to yield in all 7,000,000 trees in 1923 and 1924; 3,692,000 trees available for planting during 1921.

12 nurseries at State Institutions were started spring 1921, yielding with State Forest Nurseries 20,000,000 seedlings in 1925.

248,293 trees planted on State Forests on 150 acres and 15 forests.

2,748,120 trees distributed to private parties; this will restock 2,000 acres.

11,770,448 trees given away to citizens of State during last 10 years, over 50% of this amount during 1919 and 1920.

34,054,581 trees planted to date on State Forests.

37 tracts, covering 10,600 acres were examined for private parties; 24 requests for examination on hand.

Inspections made to detect presence of insect and fungous diseases; white pine weevil suppression by field officers.

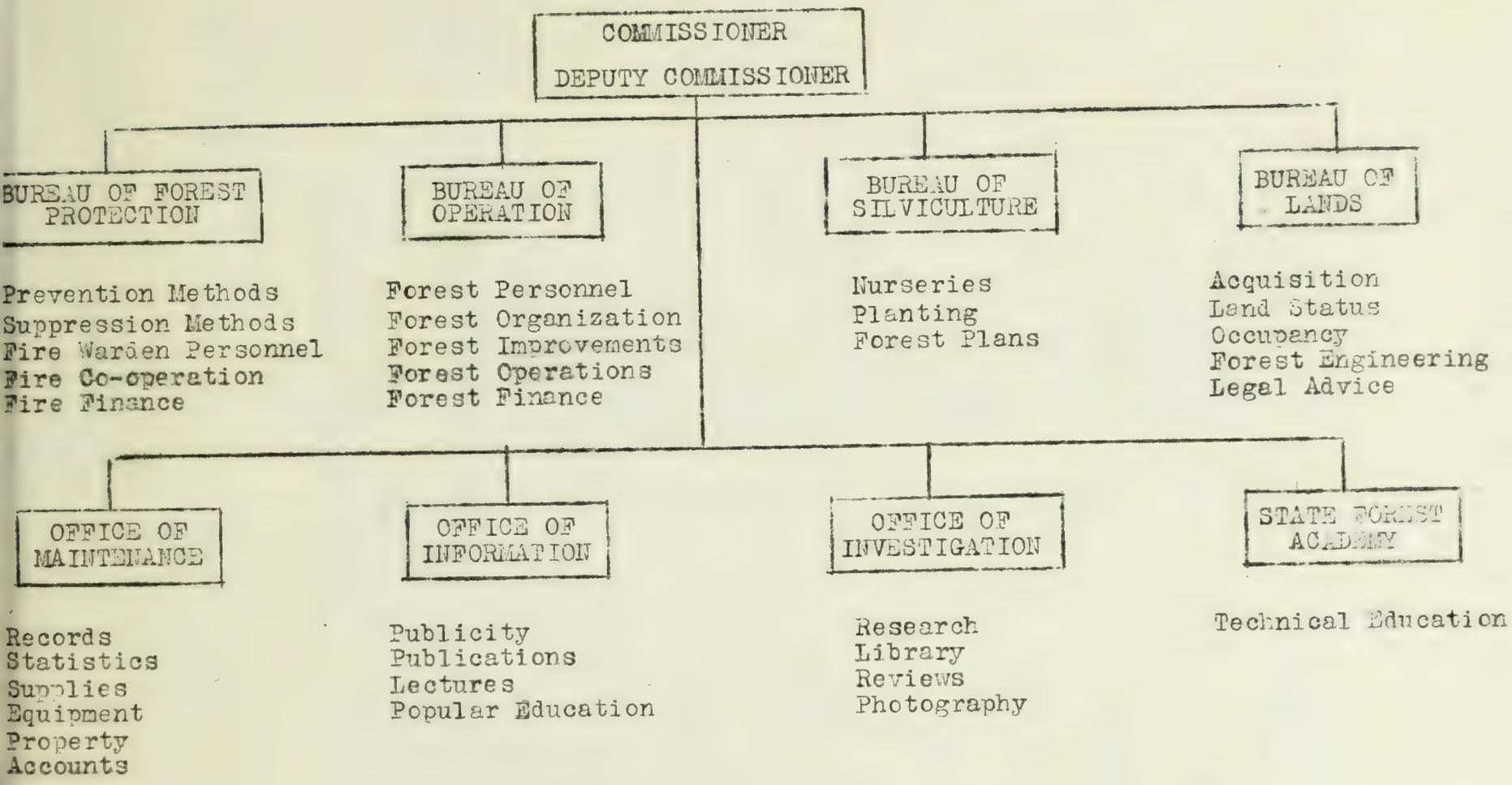
191 signs erected.

Seeds collected, fall of 1920:

Red oak	10 bushels.
Walnut	200 "
Black Locust pods	40 "
Sugar maple	39 "
Norway maple	½ bushel
Wild black cherry	1 "
White ash	1½ bushels.
White pine cones	520 "
Hemlock cones	5 "
Table Mt. pine cones	5 "
Pitch pine cones	37 "
Norway spruce cones	20 "
	879 "

Leaflet No. 17.
October 20, 1921.

ORGANIZATION CHART - PENNSYLVANIA DEPARTMENT OF FORESTRY



Leaflet No. 18
October 20, 1921.

DISTRICT, NUMBER, POST OFFICE and NAME OF FORESTERS.

DISTRICT	NO.	POST OFFICE	FORESTER
Michaux	1	Fayetteville #2	J.R.Williams
Buchanan	2	Everett (Gump Bldg.)	W. L. Byers
Tuscarora	3	Blain	H. E. Bryner
Rothrock	4	Mount Union	Walter Leach
Logan	5	Petersburg	T. Roy Morton
Penn	6	Milroy	W. J. Bartschat
Karoondinha	7	Mifflinburg	R. B. Winter
Bald Eagle	8	Lock Haven	Benj. D. McPherson
Moshannon	9	Clearfield	Wm. F. Dague
Sproul	10	Renovo (125 N. 9th St.)	F. H. Dutlinger
Sinnemahoning	11	Driftwood	C. H. Hogeland
Tiadaghton	12	Williamsport (341 Pine St.)	Homer S. Metzger
Elk	13	Sizerville	H. E. Elliott
Susquehannock	14	Coudersport	H. F. Port
Ole Bull	15	Cross Fork	J. E. Powers
Tioga	16	Wellsboro	P. H. Mulford
Valley Forge	17	Harrisburg	George H. Wirt
Weiser	18	Pottsville (6 So. Centre St.)	Chas E. Baer
Delaware	19	Analomink, R.D.	R. W. Stadden
Wyoming	20	Dushore	A. F. Snyder
Lackawanna	21	Scranton (316 Washington Ave.)	R. L. Emerick
Forbes	22	Ligonier	V. M. Bearer
Gallitzin	23	Johnstown (Swank Bldg.)	W. D. Ludwig
Kittanning	24	Clarion (P.O.Box 352)	C. E. Zerby
Cornplanter	25	Warren (YMCA)	H. B. Rowland
Mont Alto	26	Mont Alto	E. A. Ziegler

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